

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)**ScienceDirect**

Procedia - Social and Behavioral Sciences 116 (2014) 956 – 961

**Procedia**  
Social and Behavioral Sciences5<sup>th</sup> World Conference on Educational Sciences - WCES 2013

## Can internalization of sociocultural beauty standards predict adolescents' physical activity?

Brigita Mieziene<sup>a,b\*</sup>, Rasa Jankauskiene<sup>b</sup>, Rasa Mickuniene<sup>b</sup><sup>a</sup>*Vytautas Magnus university, K. Donelaičio g. 58, 44248 Kaunas, Lithuania*<sup>b</sup>*Lithuanian sports university, Sporto 6, LT-44221 Kaunas, Lietuva*

---

### Abstract

The aim of the study was to examine the relationship between the internalization of sociocultural standards of physical attractiveness and physical activity among adolescents of both genders. The participants of the study were 821 adolescents from 15 to 18 years of age. Internalization of general sociocultural standards of physical attractiveness was associated with significantly lower strenuous and moderate PA in girls, but not in boys. Internalization of athletic body image was associated with higher strenuous PA in both genders.

© 2013 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Selection and/or peer-review under responsibility of Academic World Education and Research Center.

**Keywords:** body dissatisfaction, adolescence, body image.

---

### 1. Introduction

Physical activity contributes to adolescents' physical and mental health (Abbott & Barber, 2010; Hallal, Victora, Azevedo, & Wells, 2006). Studies showed that media, cultural values and social preconceptions influence their participation in physical activity (Tavares et al., 2004, Hassandra, Goudas, & Chroni, 2003). However, the association between internalization of social and cultural values and physical activity in adolescence is the question worthy for further consideration.

Studies show that girls and women receive constant messages from their social environment that a thin physique, boys and men that a muscular body, is very attractive (Brunet, Sabiston, Dorsch, & McCreary, 2010). However, internalization of sociocultural standards of body image leads to body dissatisfaction in adolescent girls (Austin & Smith, 2008) and is also increasingly common among males (Daniel & Bridges, 2010). Adolescents' body dissatisfaction is related to a variety of health damaging behavioral outcomes, such as food manipulations, dieting, use of food supplements and drugs (Neumark - Sztainer, Paxton, Hannann, Stat, Haines, & Story, 2006), reduced physical activity (Haines & Neumark-Sztainer, 2006; Meland, Haugland & Breidablik, 2007), over-exercising or even weight training addiction (McCabe & James, 2009; McCabe & Ricciardelli, 2003; McCabe & Vincent, 2002).

---

\*Corresponding Author :Brigita Mieziene. Tel.: +370-686-84622

E-mail address: [b.mieziene@lkka.lt](mailto:b.mieziene@lkka.lt)

Therefore, measuring the internalization of body ideals is important for both genders (McCabe & Ricciardelli, 2003; Karazsia & Crowther, 2008; Jackson & Chen, 2010).

Association between internalization of sociocultural beauty standards and physical activity was explored in only a few studies. Those studies found that desire to look like celebrities in the sport media was associated with higher physical activity levels among older children and adolescents (Tavares et al., 2004, Hassandra, Goudas, & Chroni, 2003). However, there is lack of studies exploring the associations between internalization of socially adored female and male beauty ideals and physical activity. Therefore, the aim of the present study was to examine the association between the internalization of sociocultural standards of physical attractiveness and physical activity in a representative sample of adolescents of both genders.

## **2. Methods**

### *2.1. Participants*

The study involved 821 adolescents (335 (40.8 %) boys and 486 (59.2 %) girls) from 10th - 11th grades. Their age ranged from 15 to 18 years ( $M = 16.61$ ,  $SD = 0.73$ ). The research was approved by Lithuanian Bioethics Committee. Informed consent of participants and parental permission were also obtained.

### *2.2. Instruments*

The Sociocultural Attitudes Towards Appearance Questionnaire-3 (SATAQ-3, Thompson et al., 2004) with four subscales (Internalization-General (I would like my body to look like the models who appear in magazines), Pressures (I've felt pressure from TV and magazines to be thin), Information (TV programs are an important source of information about fashion and "being attractive") and Internalization-Athlete (I compare my body to that of people who are athletic)) was used in the study. The answers were produced on a 5-point Likert scale, ranging from 1 (definite disagreement) to 5 (definite agreement). The higher the score, the greater was the acceptance or internalization of the prevailing sociocultural standards for appearance. Physical activity (PA) was assessed using Leisure Time Exercise Questionnaire (LTEQ, Godin & Shephard, 1985). It measured strenuous, moderate and mild physical activity during a week. The number of bouts of strenuous exercise was multiplied by 9, moderate exercise - by 5 and mild exercise - by 3. Higher score indicated higher PA in each of those three levels.

### *2.3. Statistical analysis*

Analysis was carried out using SPSS 19.0 for Windows software. Assumptions for multiple regression were met. Separate hierarchical linear regression models for each of the PA variables (strenuous, moderate, mild) were conducted. BMI variable was entered in Step 1 as the control variable in every regression model. Variables of sociocultural beauty standards were entered in Step 2.

## **3. Results**

Results showed that in the group of boys internalization of sociocultural standards (general, information and pressure) was not associated with PA. However, Athlete body internalization was associated with higher strenuous PA. Higher BMI was a significant predictor of lower moderate and lower mild PA in both steps (Table 1).

Table 1. Predictors of physical activity in boys

		Dependent variable								
		Strenuous PA			Moderate PA			Mild PA		
Independent variable		$\beta$	$t$	$p$	$\beta$	$t$	$p$	$\beta$	$t$	$p$
	Step 1									
BMI		.07	1.21	.23	-.13	-2.14	.03	-.16	-2.56	.01
	Step 2									
BMI		.05	.79	.43	-.14	-2.23	.03	-.16	-2.56	.01
General		.18	1.71	.09	.20	1.85	.07	.16	1.42	.16
Information		-.10	-1.14	.26	-.12	-1.34	.18	-.07	-.78	.44
Pressures		-.14	-1.42	.16	-.09	-.90	.37	-.06	-.62	.53
Athlete		.19	2.40	.02	-.09	-1.14	.26	-.11	-1.34	.18

In girls, general internalization of sociocultural standards of physical attractiveness was associated with significantly lower strenuous and moderate PA. Mild PA was not predicted by internalization (information and pressure) of sociocultural appearance standards. However, internalization of athletic image was associated with higher strenuous PA. Further, higher BMI predicted higher strenuous and mild PA in both steps (Table 2).

Table 2. Predictors of physical activity in girls

		Dependent variable								
		Strenuous PA			Moderate PA			Mild PA		
Independent variable		$\beta$	$t$	$p$	$\beta$	$t$	$p$	$\beta$	$t$	$p$
	Step 1									
BMI		.12	2.40	.02	.06	1.29	.20	.13	2.76	.01
	Step 2									
BMI		.10	1.97	.05	.04	.74	.46	.14	2.78	.01
General		-.20	-2.47	.01	-.24	-2.91	.01	-.13	-1.57	.12
Information		.02	.39	.70	.01	.07	.94	.05	.75	.45
Pressures		-.01	-.17	.87	.14	1.89	.06	.01	.12	.90
Athlete		.32	5.35	.01	.12	1.93	.06	.04	.62	.53

#### 4. Discussion

Results of our study indicate that general internalization of sociocultural beauty standards is associated with lower adolescent girls' strenuous physical activity. Feminine body image ideal is extremely thin (Knauss, Paxton, & Alsaker, 2007; Ahern, Bennett, Kelly, & Hetherington, 2011), therefore adoration of this ideal is tightly associated with adolescents' body dissatisfaction (Vilhjalmsson, Kristjansdottir, & Ward, 2012). Studies show that adolescent

body dissatisfaction does not serve as motivator of healthy lifestyle (Neumark – Sztainer, Paxton, Hannan, Haines, & Story, 2006). On the contrary, adolescents dissatisfied with their bodies demonstrate various unhealthy weight reduction – related behaviors (Hutchinson, Rapee, & Taylor, 2011; Heywood & McCabe, 2006). Thus, the present study added evidence that strenuous and moderate physical activity as an element of healthy lifestyle is not pursued by adolescent girls with higher internalization of sociocultural beauty standards.

Moreover, strenuous and moderate physical activity might be related with involvement in organized sports (Kjønniksen, Fjørtoft, & Wold, 2009), while mild physical activity might be achieved in daily activities as walking, cycling, housekeeping, etc. Involvement in organized sports is associated with higher athletic lifestyle and more athletic body image which is not what is adored in feminine fashion magazines and other media (Daniels, 2009). Qualitative study of Slater & Tiggemann (2010, 619 pp.) showed that girls involved in sport expressed feelings “like crossing traditional gender boundaries when playing sport, particularly for sports traditionally classified as “masculine”.

As expected, our results showed that internalization of athletic body image was associated with higher strenuous physical activity in both genders. The findings are in accordance with other studies (Tavares et al., 2004, Hassandra, Goudas, & Chroni, 2003). One of the explanations is that adolescents involved in strenuous exercising more internalize athletic body image compared to their less physically active counterparts. Thus, involvement in athletic environment with peers engaged in sports or family approving of physical activity makes athletic body image acceptable for exercising adolescents. However, this is a speculation as the study is cross-sectional and the causality has not been determined. On the contrary, it might be that internalization of athletic standards fosters adolescents to be involved in physical activity. Thus, future studies should explore these associations more deeply. Furthermore, future studies should answer if fostering athletic body image could help adolescents meet physical activity recommendations, especially in strenuous physical activity.

It should be mentioned that boys are more vulnerable to athletic body standards internalization, which induces them to exercise more intensively. In their study Smolak & Stein (2010) showed that adolescent boys who showed higher internalization of gender role were more likely to be invested in media ideals of muscularity and were more likely to use muscle building techniques. Muscular body concerns have negative effect on mental health. Research found that drive for muscularity was negatively related to the level of appearance self-esteem and positively related to the level of vanity (Hausenblas & Fallon, 2002). So, more favorable health outcome associated with physical activity might be expected if preventive methods for unrealistic body image, including media literacy, were implemented and fitness rather than muscularity was emphasized. Information like this should be provided at schools, and physical as well as health education teachers are those who have the authority to disseminate health promoting information.

In girls, higher body mass index was associated with higher strenuous and mild physical activity in both steps of regression analysis. These results are surprising as they contradict to other findings (Kimm et al., 2005). However, it might be explained by higher lean body mass and higher overall weight of girls involved in physical activity as sport has a masculinizing effect on the human body. However, the study of O’Dea & Amy (2011) showed that thin children (6-18 years old) differed from children of other weights (overweight or underweight) in that thin children were less likely to desire to get fitter or be encouraged to exercise. Moreover, the study of Ferrar & Olds (2010) showed that thin adolescents were less active than their normal weight peers, but they covered longer distances and spent significantly less time watching TV than obese adolescents. Other studies show that adolescent’s body dissatisfaction is associated with excessive exercise (McCabe & Vincent, 2002). Therefore, it might be that girls with higher body weight are more dissatisfied with their body and they exercise harder to lose weight. However, future studies should address these questions.

## 5. Conclusions

The findings of our study added evidence to the limited research regarding relations of internalization of sociocultural attitudes and physical activity. Results suggest that general internalization of socially adored body image might be associated with lower adolescent girls’ physical activity. However, it seems that fostering athletic

body image might help increase adolescents' physical activity. Thus, future studies should test and specify these findings. School physical and health education should use media literacy to decrease thin ideal internalization and gender stereotypes among adolescents of both genders. Further research should investigate motivation for exercising and body dissatisfaction as mediating variables between internalization of sociocultural standards of physical attractiveness and physical activity.

## References

- Abbott, B. D., & Barber, B. L. (2010). Embodied image: gender differences in functional and aesthetic body image among Australian adolescents. *Body Image*, 7 (1), 22-31.
- Ahern, A. L., Bennett, K. M., Kelly, M., & Hetherington, M. M. (2011). A Qualitative Exploration of Young Women's Attitudes towards the Thin Ideal. *Journal of Health Psychology*, 16 (1), 70-79.
- Austin, J. L. & Smith, J. E. (2008). Thin ideal internalization in Mexican girls: A test of the sociocultural model of eating disorders. *International Journal of Eating Disorders*, 41(5), 448-457.
- Brunet, J., Sabiston, C. M., Dorsh, K. D., & McCreary, D. R. (2010). Exploring a model linking social physique anxiety, drive for muscularity, drive for thinness and self-esteem among adolescent boys and girls. *Body Image*, 7, 137-142.
- Daniel, S., & Bridges, S. (2010). The drive for muscularity in men: Media influences and objectification theory. *Body Image*, 7, 32-38.
- Daniels, E. A. (2009). Sex Objects, Athletes, and Sexy Athletes How Media Representations of Women Athletes Can Impact Adolescent Girls and College Women. *Journal of Adolescent Research*, 24 (4), 399-422.
- Ferrar, K., Olds, T. (2010). Thin adolescents: Who are they? What do they do? Socio-demographic and use-of-time characteristics. *Preventive Medicine*, 51(3-4), 253-8.
- Godin, G., & Shephard, R.J. (1985). A simple method to assess exercise behavior in the community. *Canadian Journal of Applied Sports Science*, 10, 141-146.
- Haines, J., & Neumark – Sztainer, D. (2006). Prevention of obesity and eating disorders: A consideration of shared risk factors. *Health Education Research*, 21, 770-782.
- Hallal, P. C., Victora, C. G., Azevedo, M. R., & Wells, J. C. (2006). Adolescent physical activity and health: a systematic review. *Sports Medicine*, 36(12), 1019-30.
- Hassandra, M., Goudas, M., & Chroni, S. (2003). Examining factors associated with intrinsic motivation in physical education: a qualitative approach. *Psychology of Sport and Exercise*, 4, 211-223.
- Hausenblas, H. A., & Fallon, E. (2002). Relationship among exercise behavior, body image, and exercise dependence symptoms. *International Journal of Eating Disorders*, 32, 179-185.
- Heywood, S., & Mc Cabe, M. P. (2006). Negative Affect as a Mediator between Body Dissatisfaction and Extreme Weight Loss and Muscle Gain Behaviors. *Journal of Health Psychology*, 11(6), 833-844.
- Hutchinson, D. M., Rapee, R. M., & Taylor, A. (2010). Body Dissatisfaction and Eating Disturbances in Early Adolescence: A Structural Modeling Investigation Examining Negative Affect and Peer Factors. *Journal of Early Adolescence*, 30(4), 489-517.
- Jackson, T., & Chen, H. (2010). Factor structure of the Sociocultural Attitudes Towards Appearance Questionnaire – 3 (SATAQ-3) among adolescent boys in China. *Body Image*, 7, 349-355.
- Karazsia, B. T., & Crowther, J. H. (2008). Psychological and behavioural correlates of the SATAQ-3 with males. *Body Image*, 5, 109-115.
- Kimm, S. Y., Glynn, N. W., Obarzanek, E., Kriska, A. M., Daniels, S.R., Barton, B. A., & Liu, K. (2005). Relation between the changes in physical activity and body-mass index during adolescence: A multicentre longitudinal study. *Lancet*, 366, 301-307.
- Kjønniksen, L., Fjørtoft, I., & Wold, B. (2009). Attitude to physical education and participation in organized youth sports during adolescence related to physical activity in young adulthood: A 10-year longitudinal study. *European physical education review*, 15(2), 139-154.
- Knauss, Ch., Paxton, S. J., & Alsaker, F. D. (2007). Relationships amongst body dissatisfaction, internalisation of the media body ideal and perceived pressure from media in adolescent girls and boys. *Body Image*, 4, 353-360.
- McCabe, M. P., & James, T. (2009). Strategies to Change Body Shape Among Men and Women Who Attend Fitness Centers. *Asia-Pacific Journal of Public Health*, 21 (3), 268-278.
- McCabe, M. P., & Vincent, M. A. (2002). Development of Body Modification and Excessive Exercise Scales for Adolescents. *Assessment*, 9: 131.
- McCabe, M.P., & Ricciardelli, L. A. (2003). Sociocultural influences on body image and body changes among adolescent boys and girls. *The Journal of Social Psychology*, 143, 5-26.
- Meland, E., Haugland, S., & Bredablik, H. J. (2007). Body image and perceived health in adolescence. *Health Education Research*, 22, 342-350.
- Neumark – Sztainer, D., Paxton, S. J., Hannan, P., Stat, M., Haines, J., & Story, M. (2006). Does body satisfaction matter? Five- year longitudinal associations between body satisfaction and health behaviours in adolescent females and males. *Journal of Adolescent Health*, 39, 244-251.

- O'Dea, J. A., & Amy, N. K. (2011). Perceived and desired weight, weight related eating and exercising behaviors, and advice received from parents among thin, overweight, obese or normal weight Australian children and adolescents. *International Journal of Behavioral Nutrition and Physical Activity*, 8:68.
- Slater, A., & Tiggemann, M. (2010). "Uncool to do sport": A focus group study of adolescent girls' reasons for withdrawing from physical activity. *Psychology of Sport and Exercise*, 11 (6), 619–626.
- Smolak, L., & Stein, J. A. (2010). A Longitudinal Investigation of Gender Role and Muscle Building in Adolescent Boys. *Sex Roles*, 63, 738–746.
- Tavares, E. M., Rifas-Shiman, S. L., Field, A. E., Frazier, A. L., Colditz, G. A., & Gillman, M. W. (2004). The influence of wanting to look like media figures on adolescent physical activity. *Journal of Adolescent Health*, 35 (1), 41–50.
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The sociocultural attitudes towards appearance scale – 3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, 35, 293–304.
- Vilhjalmsson, R., Kristjansdottir, G., & Ward, D. (2012). Bodily Deviations and Body Image in Adolescence. *Youth & Society*, 44(3), 366–384.